Dynamic Positioning NPRM Overview

CAPT Joshua Reynolds

USCG Eighth District Prevention Division

General Information

79 FR 70944 published November 28, 2014

Comment Period closes May 27, 2015; **90 Day extension granted**

79 FR USCG Design and Engineering Standards (CG-ENG) Web Site:
http://www.uscg.mil/hq/cg5/cg521/

DP NPRM FAQs:
http://www.uscg.mil/hq/cg5/cg521/docs/DP_FAQs.pdf

2013 Meeting Minutes with Industry:
http://www.uscg.mil/hq/cg5/cg521/docs/2013.01%20OCS%20Minutes.pdf

US Coast Guard Outer Continental Shelf Center of Expertise DP Links
http://www.uscg.mil/hq/cg5/ocsncoe/DPguidance.asp

DP Safety Alerts
Coast Guard Alert 01-15 / BSEE Alert #315 (February 24, 2015)
Coast Guard Alert 08-14 / BSEE Alert #312 (May 20, 2014)
Coast Guard Alert 05-13 (June 19, 2013)

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USCG Eighth District Prevention Division

Public Meeting (80 FR 12784)

March 31, 2015 from 9 a.m. to 1 p.m.

Board's Administration Building,
1350 Port of New Orleans Place,
New Orleans, LA, 70130

Posting Comments on Docket:
http://www.regulations.gov
docket number USCG–2014–0063

Intent to Publish Regulation

Commandant: "I will …. pursue regulatory changes for DP vessels … (addressing) … DP systems and … manning and operation"

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

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16732
SEP 0 9 2011

EXPLOSION, FIRE, SINKING AND LOSS OF ELEVEN CREW MEMBERS ABOARD THE MOBILE OFFSHORE DRILLING UNIT DEEPWATER HORIZON IN THE GULF OF MEXICO, APRIL 20-22, 2010

ACTION BY THE COMMANDANT

On April 20, 2010, in the Gulf of Mexico, an explosion occurred on the MODU *DEEPWATER HORIZON* during temporary abandonment operations when hydrocarbons entered the well, travelled up the riser and ignited. None of the well control efforts stopped the flow of hydrocarbons; explosions occurred and fires raged on the rig as the *DEEPWATER HORIZON* crew and visiting BP and Transocean executives evacuated. Of the 126 people aboard, 115 people evacuated safely. However, eleven men died and sixteen were injured. The *DEEPWATER HORIZON* continued to burn and later sank on April 22, 2010. The Macondo well spilled millions of barrels of oil into the Gulf of Mexico for 87 days while a response effort by BP and numerous federal agencies worked to cap the well, remove the discharged oil and mitigate its impact to the environment.

The tragic loss of life has weighed heavily on me, and my deepest sympathies continue to go out to the families and friends of those who gave their lives in the course of their duties. I also reflect on the enormous impact of this spill on the environment of the Gulf coast and the lives of the people who base their livelihood and recreation on the waters of the Gulf of Mexico. The actions I am directing, as a result of this investigation, reflect my commitment to all of those impacted by this historic event and underscore my commitment to the stewardship of our maritime environment.

The actions of the master and crew of the *DAMON B. BANKSTON* during the response to the *DEEPWATER HORIZON* casualty are especially noteworthy. Their heroic actions in the recovery and compassionate treatment of the 115 surviving members of *DEEPWATER HORIZON* were exemplary.

I have conducted a thorough review of the record and Volume I of the report of the Joint Department of the Interior and Department of Homeland Security Investigation (JIT). In addition, I have consulted with the Department of Homeland Security in accordance with the convening order, and this memo constitutes final agency action by the Coast Guard for the Coast Guard portion of the investigation. The record and Volume I of the report, including the facts, analysis, conclusions, and recommendations are approved subject to the following comments.

COMMENTS ON THE REPORT

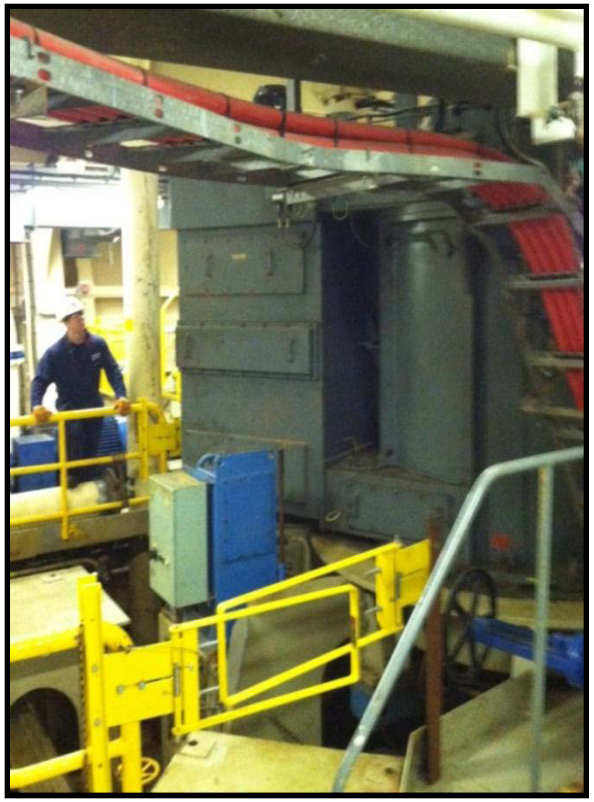
1. Adequacy of International and Domestic Safety Regime. The *DEEPWATER HORIZON* casualty was a catastrophic event that was initiated by a failure of well containment, an area that

Final

Legal Memo attached to DWH investigation

"a vessel operating in DP mode… is considered a self-propelled vessel"

NOSAC's advice



"the Coast Guard desires NOSAC's recommendations for dynamic positioning system design and engineering, operational and training standards"

"Stapled" to NOSAC Recommendation

July 7, 2010

RADM Paul F. Zukunft
Assistant Commandant for Marine Safety, Security and Stewardship (CG-5)
U.S. Coast Guard Headquarters
2100 Second Street, SW STOP 7355
Washington, DC 20593-7355

Subject: **NOSAC – Final Report – Recommendations for Dynamic Positioning System Design and Engineering, Operational and Training Standards**

Dear Admiral Zukunft,

As Co-chair of the NOSAC Subcommittee that was created to study and report on the above subject, I am pleased to submit the subcommittee's final report including its recommendations and additional reference documents.

The attached final report was unanimously approved by the NOSAC at its 1 July 2010 open teleconference meeting.

This report fills the requirements of the charge to the Subcommittee by NOSAC. However it must be noted that there was a very strict and short time frame allowed for the delivery of the report. Therefore the Subcommittee members remain available to assist your office if further clarification is necessary and remain engaged in this subject should any other assistance be requested.

The cooperation of the Coast Guard in attending and participating in the Subcommittee's many meetings and discussions leading up to the issuance of the final report, recommendations and comments is greatly appreciated.

DP OPERATIONS GUIDANCE

(GUIDANCE ON THE SAFE AND EFFECTIVE MANAGEMENT OF DP OPERATIONS IN THE OFFSHORE OIL AND GAS INDUSTRY)

Voluntary Guidance Published

May 4, 2012- MODUs

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[USCG–2011–1106]

Mobile Offshore Drilling Unit Dynamic Positioning Guidance

AGENCY: Coast Guard, DHS.

ACTION: Notice of Recommended Interim Voluntary Guidance.

SUMMARY: On December 29, 2011, the Coast Guard published a notice of availability and request for comments regarding a draft policy letter on Dynamic Positioning (DP) Systems, Emergency Disconnect Systems, Blowout Preventers, and related training and emergency procedures on a Mobile Offshore Drilling Unit. We received comments both as submissions to the docket and at a public meeting held on February 9, 2012, at Coast Guard Headquarters. Based on the comments received, the Coast Guard intends to adjust the scope of the policy described in that notice. The Coast Guard is publishing this notice to recommend interim voluntary DP system guidance and recommend DP incident reporting criteria.

"The Coast Guard… intends to initiate a rulemaking that addresses DP incident reporting requirements and minimum DP system design and operating standards."

Oct 12, 2012- Vessels

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2011–1106]

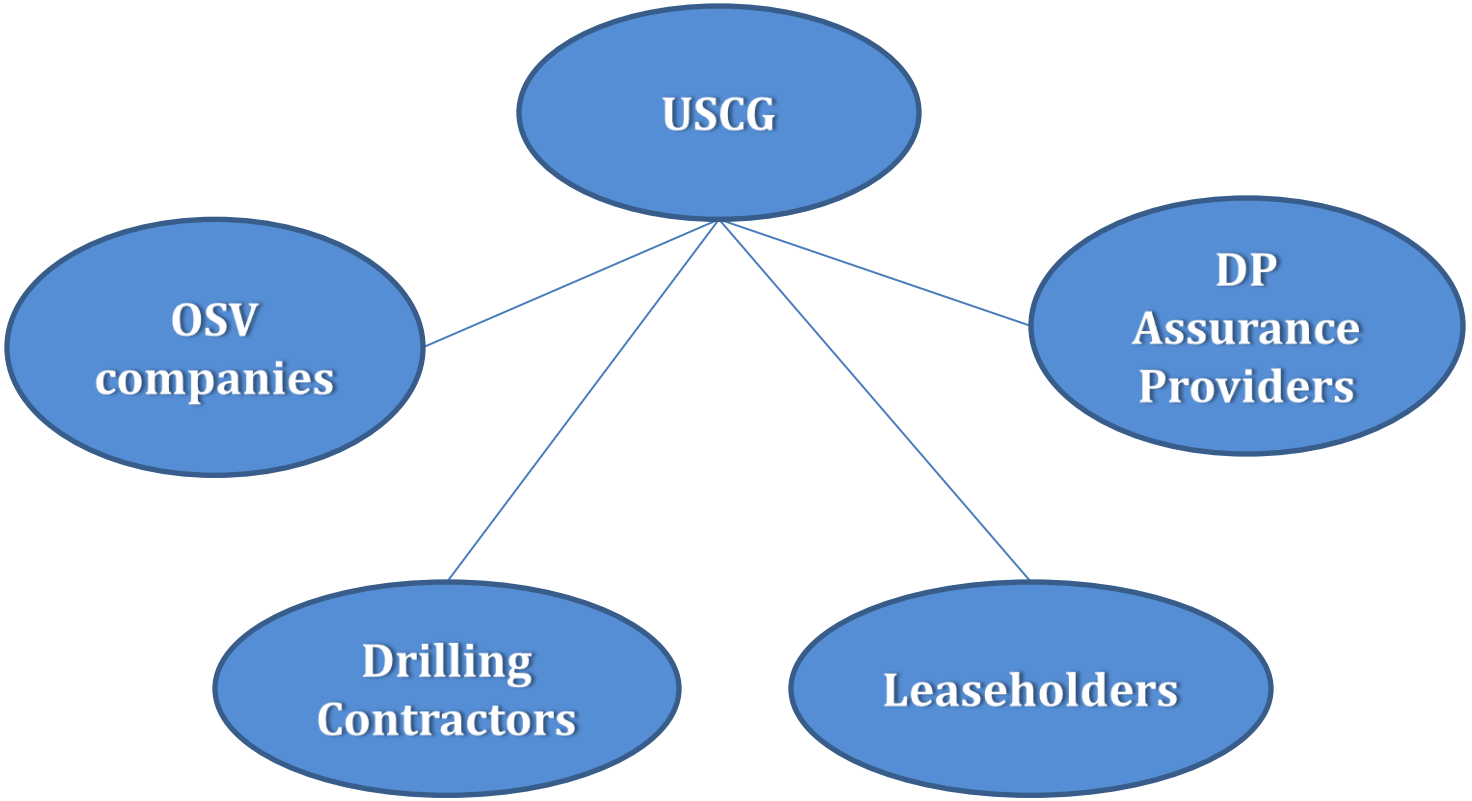
Dynamic Positioning Operations Guidance for Vessels Other Than Mobile Offshore Drilling Units Operating on the U.S. Outer Continental Shelf

AGENCY: Coast Guard, DHS.

ACTION: Notice of Recommended Interim Voluntary Guidance.

SUMMARY: On May 4, 2012 the Coast Guard published a notice of recommended interim voluntary guidance titled "Mobile Offshore Drilling Unit Dynamic Positioning Guidance". The notice recommended owners and operators of Mobile Offshore Drilling Units (MODUs) follow Marine Technology Society (MTS) Dynamic Positioning (DP) operations guidance for MODUs. The Coast Guard is now also recommending owners and operators of all vessels other than MODUs conducting Outer Continental Shelf (OCS) activities on the U.S. OCS follow the appropriate MTS DP operations guidance for these vessels. In particular, the Coast Guard recommends owners and operators of these vessels operate within an Activity Specific Operating Guideline for each activity and operate with its Critical Activity Mode of Operation when that activity is critical.

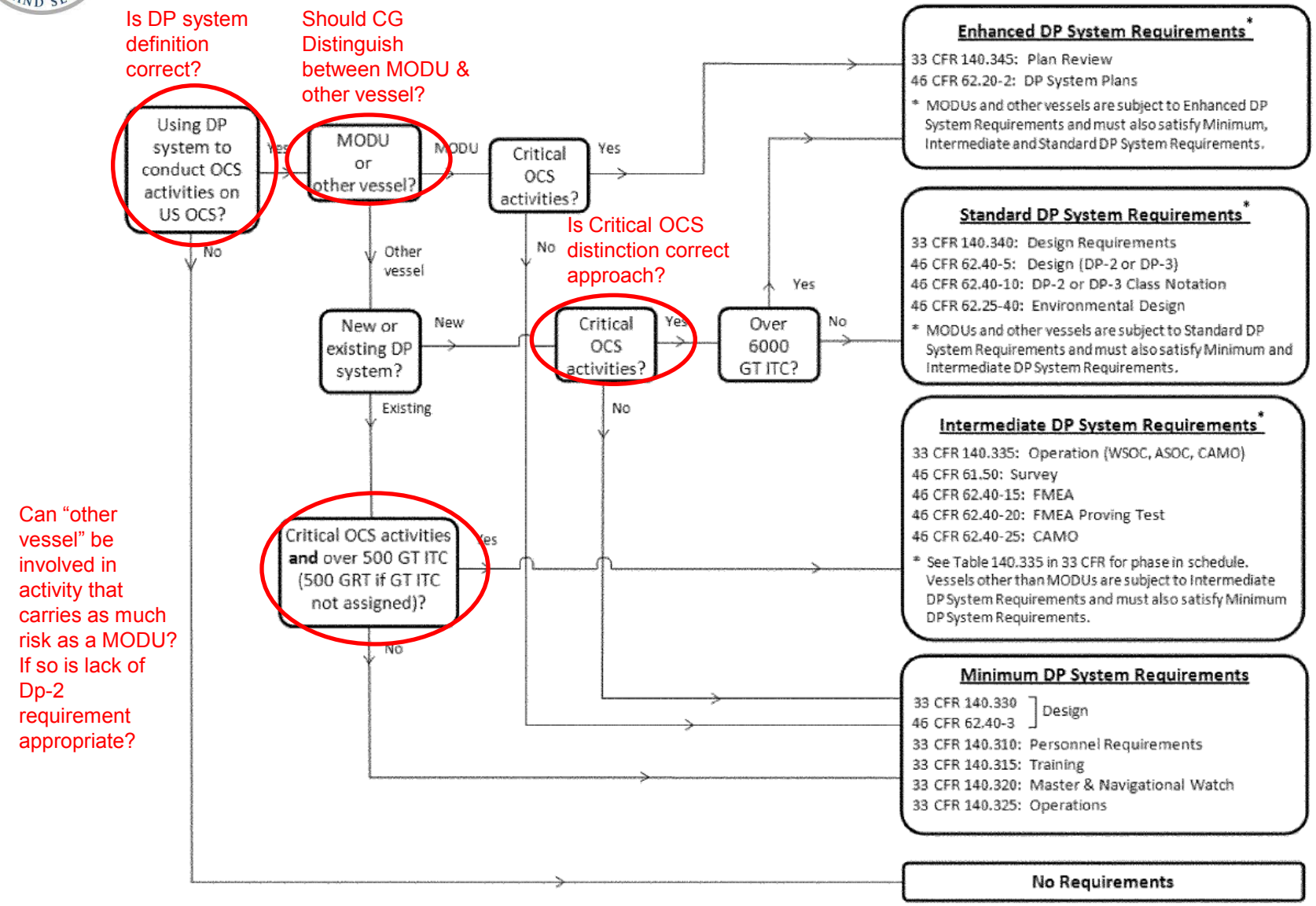
Pre-rule outreach to Industry



Minutes of Teleconferences

http://www.uscg.mil/hq/cg5/cg521/docs/2013.01%20OCS%20Minutes.pdf

Preamble Applicability Chart: 79 FR 70950



Training

Coast Guard is proposing a training scheme

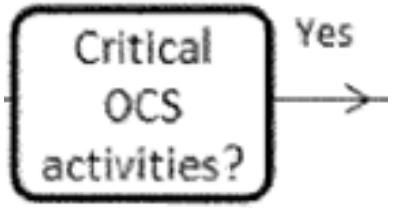
- **Based on international industry-accepted standards for DPO and DPOQ**
  - **STCW Code (Section B–V/e)**
  - **IMCA M 117**
  - **IMO MSC/Circ. 738**
- **Two part training – General and specific to the ship**
- **Proof of training can be documented through different means**

Watchkeeping and Manning

Coast Guard is proposing a training scheme

- **Navigational watches must be maintained**
- **Separation of the navigational responsibilities from the DP operator responsibilities**
- **Risk-based approach for the determination of number of DP operators**
- **MODUs - Must hold a manning certificate**

79 FR 70986: proposed 140.315



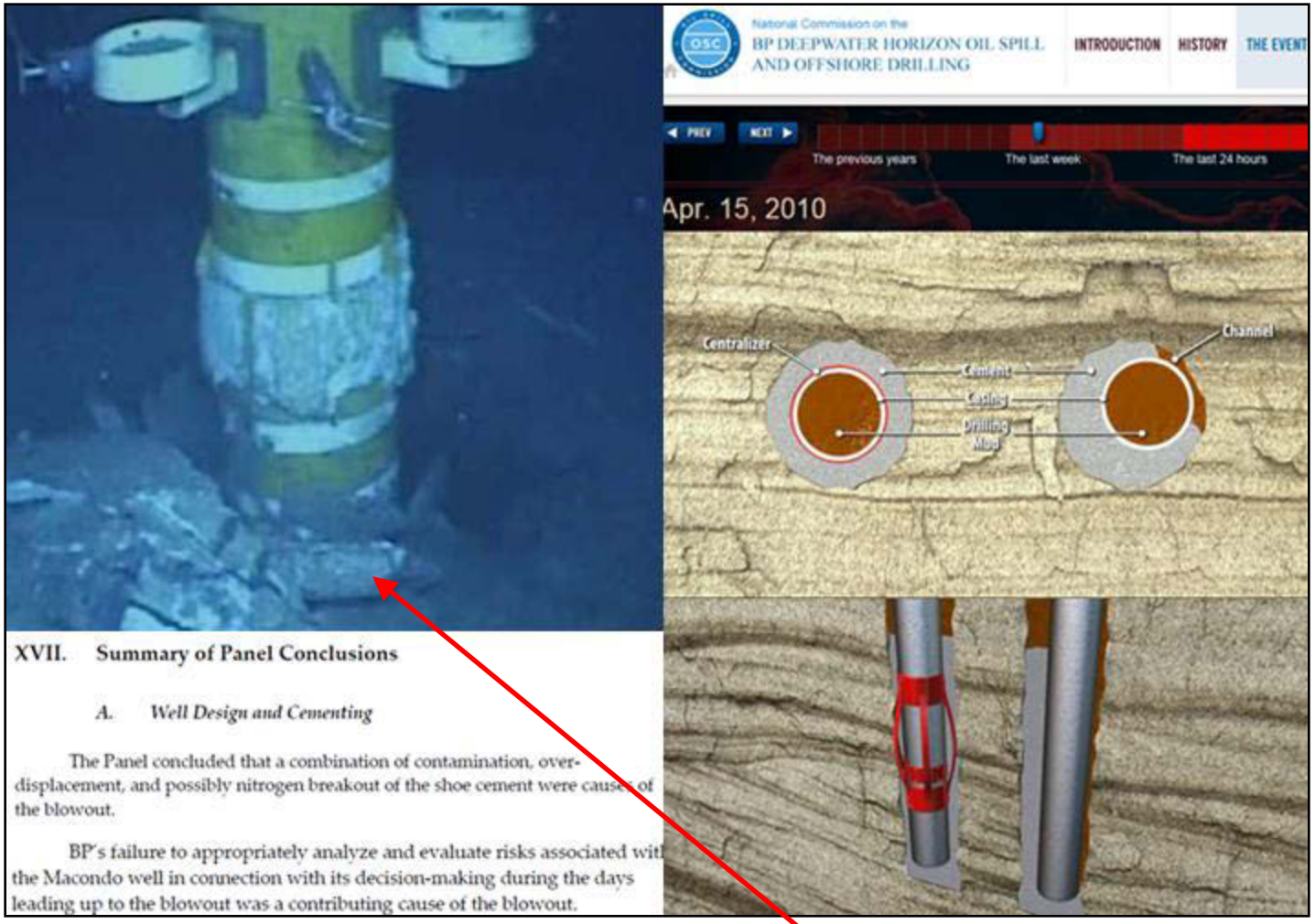
• Preamble 79 FR 70945 par III. B. “Purpose”- see rationale and footnote examples. See safety alerts BSEE and CG have published on GoM incidents.

- Is the definition of critical OCS activities appropriate? Is there an industry standard or guidance that the CG could refer to for determining risk?
- Are risk assessments already required for well operations that require permits from BSEE (APD? APM?) Can these assessments inform CG whether activity is “critical”?

At least one industry effort…

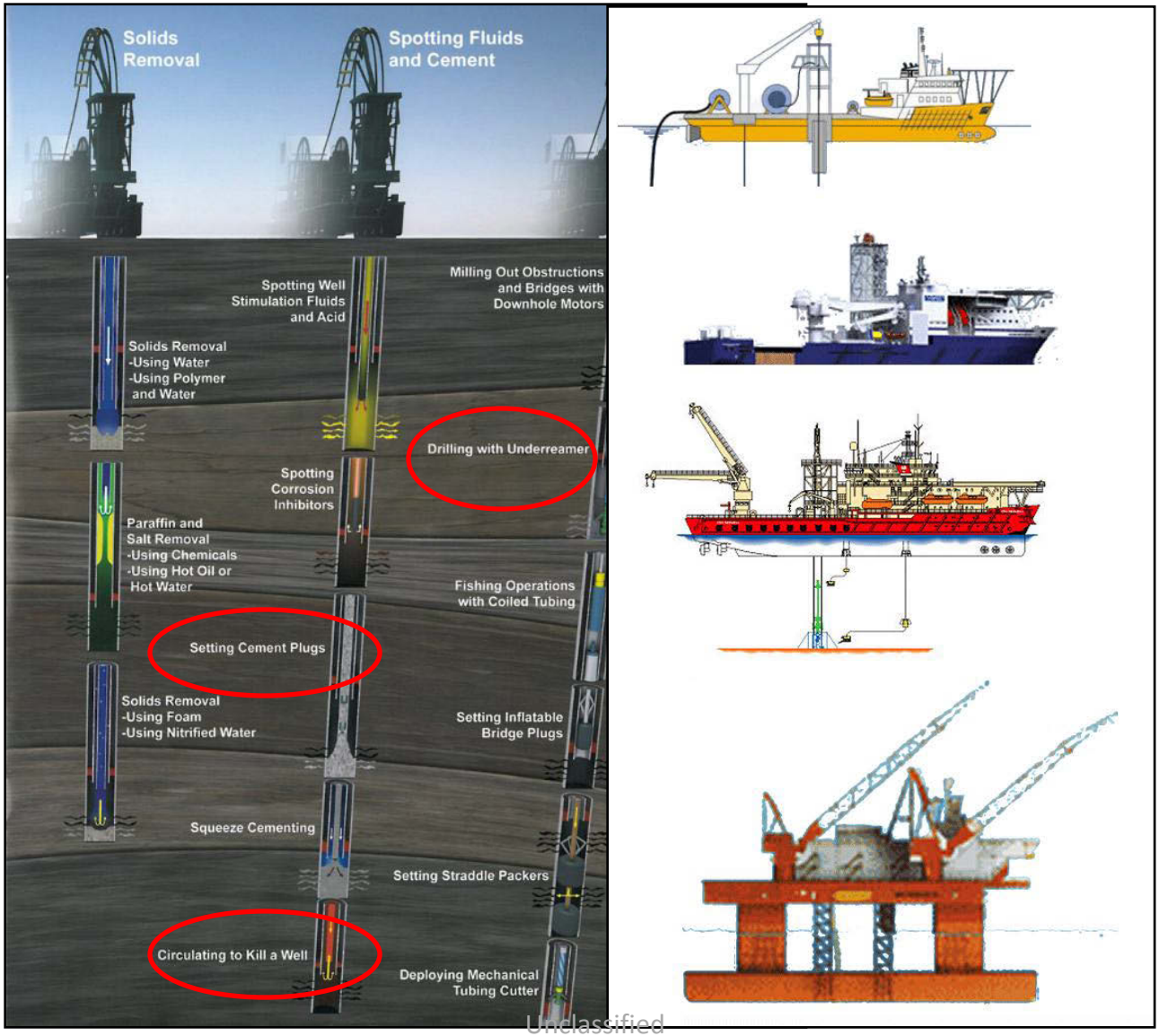
MTS TECHOP "DEFINING CRITICAL ACTIVITIES REQUIRING SELECTION OF CRITICAL ACTIVITY MODE"

79 FR 70945, Paragraph III "Basis and Purpose"



Damage to casing from DP LOP event
(Source: Anonymous)

Coast Guard Alert 01-15 / BSEE Alert #315
Well intervention vessels – "other vessel" or "MODU"?
What risks do these operations entail?



"Setting Cement Plugs"

"Kill Well"

"Drilling with Underreamer"

Highlights

Intermediate DP System Requirements*

33 CFR 140.335: Operation (WSOC, ASOC, CAMO)
46 CFR 61.50: Survey
46 CFR 62.40-15: FMEA
46 CFR 62.40-20: FMEA Proving Test
46 CFR 62.40-25: CAMO

* See Table 140.335 in 33 CFR for phase in schedule. Vessels other than MODUs are subject to Intermediate DP System Requirements and must also satisfy Minimum DP System Requirements.

No DP-2 requirement for non drilling vessels with existing DP systems

Preamble **79 FR 70951:**

"In addition to meeting the minimum DP requirements (affected vessels would need to): develop and adhere to …CAMO, ASOC, and WSOC .. (this) would ensure each DP system is operated within its design limits for the specific operation. …(and to) to report DP system incidents (minor to DPSAO; major to OCMI in writing/by email) ..as defined by the ASOC or WSOC"

"would **require DP system surveys** to be completed by a DPSAO… **initial survey, an annual survey** that ensures the DP system remains in good working order, and **periodic surveys** that fully test all systems at least once every 5 years"

Reg Analysis **79 FR 70956:**

CAPT Reynolds RA paraphrase: "reporting and incident investigations have a cost to industry"

"we expect that all existing and future MODUs would comply with this requirement (without the rule)…**OSV** and crewboat ..**roughly 50 percent ..would not be in compliance**"

TABLE 2—PHASE-IN SCHEDULE FOR VESSELS (EXCEPT MODUS) WITH EXISTING DP SYSTEMS

Tonnage of vessel other than MODU	Date requirements effective	Number of OSVs and crewboats affected
At least 1,900 GT ITC	Date of Final Rule + 3 years	224 OSVs and 0 Crewboats.
At least 900 GT ITC	Date of Final Rule + 6 years	183 OSVs and 0 Crewboats.
Greater than 500 GT ITC	Date of Final Rule + 9 years	85 OSVs and 1 Crewboat.

Implementation

- **Proposed 61.50:** Dynamic Positioning System Assurance Organizations (DPSAOs), Surveys, Incident Reports. Owner operator compliance dependent on DPSAO acceptance.

  - **There is no "CG only" survey option, must be done by DPSAO.**
    - How do you comply with survey requirements until DPSAOs are accepted by the Offshore National Center of Expertise?
    - Should CG delay survey requirements until DPSAOs are accepted? How many need be accepted?
    - 61.50-3(a)(4)-(7): Should rule contain alternate survey provision if DPSAO resources not sufficient?

- **Proposed 62.40:** Dynamic Positioning Systems
  - 62.40-5 Design: does it reference Operational, Training & Survey Requirements?
    - MSC/645 paragraphs 2 – 3 and MTS Sections 4.1 – 4.4 are design.
    - How does OCSNCOE determine "alignment" of class rules with MSC/645 and MTS ?

Highlights

Standard DP System Requirements*

33 CFR 140.340: Design Requirements
46 CFR 62.40-5: Design (DP-2 or DP-3)
46 CFR 62.40-10: DP-2 or DP-3 Class Notation
46 CFR 62.25-40: Environmental Design

* MODUs and other vessels are subject to Standard DP System Requirements and must also satisfy Minimum and Intermediate DP System Requirements.

Preamble **79 FR 70951:**

" (affected vessels) …use a new DP system to engage in Critical OCS Activities .. (would need to) comply with the provisions of IMO MSC/Circ.645 and the MTS DP Operations Guide relevant to equipment class 2 (DP–2) or higher.. And to obtain, at a minimum, a DP–2 class notation. "

Reg Analysis **79 FR 70956:**

"MODUs comply with this proposed requirement, even in the absence of this NPRM. ..**existing OSV's and crewboat's .. only 60 (to) 70 percent would comply**" ~~"only 50 percent of existing OSVs~~ and 0 percent of existing crewboats would comply with the class notation requirement" CAPT Reynolds RA paraphrase: "The DP-2 and class notation requirements have a cost to the OSV industry"

Is CG saying existing class rules used by MODUs are already aligned with Circ 645 and MTS?

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